Contextual information for WRAB 2023 IRL pre-conference workshop
Learning to theorize through writing: 8- to 10-year olds' 'gateways' into new thematic conventions.

Institutional Description: The longitudinal research described in the article was carried out with a sample group of twenty-four 8- to 10-year old children in two state Primary schools in London, England. Previous research had established the 8- to 11- year old age range to be when a 'differentiated writing style' begins to emerge. The sample represented children across the ability range from four classes in the two schools. Schools were similar in terms of student intake, performance and religious affiliation and both followed the National Curriculum.

Key Theorists: **Theorists and frames informing my linguistic focus.** In linguistics, the term Theme is '*the point of departure of the clause*' denoting the part which '*locates and orients the clause within its context*' (Halliday and Matthiessen, 2014: 89). My article focuses on how children's use of Theme position in the sentence develops at the transition from Primary to Secondary education and the contexts which appear to foster this development. Throughout, definitions of Theme and modes of thematic development are directly informed by a range of researchers in the field of Systemic Functional Linguistics (SFL).

Theorists informing my method for analysing children's writing My approach to the analysis of children's texts was informed by social-semioticians Kress (e.g. 1996) and Halliday (e.g.1993). Both theorists agree that language is 're-made' by the individual (Kress 1996, 228) in social contexts as the meaning-making potential of new forms becomes relevant to their social or intellectual needs. Integral to their analytical approach is the role that appropriated forms themselves play in providing the building blocks for further language learning. Halliday (1993, 105) proposes that linguistic and conceptual growth evolves in a reciprocal, '*dialectic*' (Halliday 1993, 105) process: '*whereby (a) from acts of meaning children, construe the system of language, while at the same time (b) from the system they engender acts of meaning* (op cit.). I used the notion of a dialectic between form and meaning to guide my understanding of the micro-genesis of new uses of Theme position in the children's texts.

Theorists informing my understanding of contexts which facilitate the development of a differentiated writing style. The literature review and discussion sections interweave contrasting perspectives on writing development from cognitive psychology, SFL research applied to educational settings and Halliday and Kress's social-semiotic theories.

Glossary: All the linguistic and SFL terminology related to Theme and thematic progression required to understand the article are defined and exemplified in the first section of the article.

The other culturally specific terminology used which might not be familiar to readers is that of Pokémon cards. The Pokémon Trading Card Game is a collectible card developed in Japan in 1996. Trading of the cards was the principal playground activity for the children involved in the research and was thus chosen as the subject for the argument written by the children in the second year of the research.

Abstract

In the lengthy learning to write process, developing the means to exploit the affordances of sentential 'Theme position' is important as it can be used to communicate *'what a message is about, the writer's angle on that message and signposts the development of the text'* (Coffin and Hewings, 2004: 156). In this longitudinal study, changing uses in Theme position in argument texts written by 17 children aged between 8 and 10 were analysed. A cross-case descriptive matrix was used to chart differences to orienting and topical elements of Theme position in arguments written when the children were rising 9 and again one year later. Three 'hybrid' texts characterized by 'transitional' thematic forms were then analysed to identify potential 'gateways' to experimentation with new modes of thematic progression as well as the potential affordances of the new forms. A net increase was identified in i) consistent signposting of arguments through 'macroThemes' (akin to topic sentences); ii) resources for indicating writer stance and iii) use of abstract noun-phrases in Theme position. Revealingly, analysis shows the latter two categories were used significantly more sparingly yet facilitated all-important options for elaborating, substantiating and qualifying arguments. Hybrid text analysis demonstrates that subtle differences in the macroThemes modelled to and selected by the children had significant implications for subsequent thematic choices and therefore modes of argumentation. The research adds to the existing research base on the evolution of Theme use and thematic progression in primary aged children and illuminates how and why children in this pivotal age-range begin to 'tune into' the affordances of thematic conventions.

Introduction

'oh saying it was one thing

but when it came to writing it

in black and white

the way it had to be said was as if you were posh, grown-up, male, English and dead.'

(final stanza of Liz Lochhead's 'Bairnsang')

The sentiment expressed in this stanza usefully describes what can be the dispiriting experience of learning to write in educational settings. Contingent instruction in the sociocultural tradition aims to contextualise the learning of powerful linguistic forms characteristic of those who are 'posh, grown-up, male, English and dead'. Such contextualised instruction should enable the novice to access the affordances of new forms while at the same time transforming the form itself to accommodate their own unique writer voice. As Kuhn (2018: 94) notes, quoting Applebee (1996:3) '*Knowledge "arises out of participation in ongoing conversations about things that matter, conversations that are themselves embedded within larger traditions of discourse." Instruction, he says, then becomes a matter of students learning to participate in such practice.'* The Systemic Functional Linguistics (SFL) research tradition has great potential to inform appropriate interventions to foster such participation, providing tools to analyse **both** the meaning-making potential of written conventions **and** the communicative contexts in which appropriated versions emerge in young writers' texts. Drawing on SFL analysis, this article reports on research which analysed children's experimentations with the affordances of linguistic Theme position.

In linguistics, the term 'Theme' is '*the point of departure of the clause*' denoting the part which '*locates and orients the clause within its context*'(Halliday and Matthiessen, 2014: 89). In Christie and Derewianka's (2008: 20) words, it is *'a cue to the reader: "This is what I'm talking about". The rest of the clause, or the Rheme, provides the new information*'.

Theme position can be exploited by writers to signal '*what a message is about, the writer's angle on that message and to signpost the development of the text'* (Coffin and Hewings, 2004: 156). Analysis of Themes across a text provides insights into a text structure, its key pre-occupations and nexus points and the writer's standpoint on what is presented. While mostly learnt implicitly, awareness of, and the ability to, exploit the affordances of linguistic Theme position is an essential part of the learning to write process. Inability to do this, may give rise to writing which appears repetitive or descriptive to the reader and, more importantly, may negatively impact on writer scope to reflect on and critically analyse their knowledge and experience in order to better understand it. Learning how to effectively exploit Theme position is a lengthy process, beginning in primary education (Berry 1995; Christie and Derewianka, 2008; Perara, 1984) and continuing through secondary (Myhill; 20009a) and into tertiary education (North, 2005; Hawes, 2015). Further, it is understood to be multi-faceted, requiring knowledge of abstract linguistic structures as well as the capacity and confidence to 'remake' such structures to realize one's own meaning. For the past few decades, SFL research has illuminated how new thematic resources become internalized through subject-specific talk and writing in secondary, subject discipline classrooms. While it is understood that towards the end of their primary education children begin to exploit Theme position, there exists very little research of this development and about the classroom contexts which might nurture it. The current research addresses this deficit.

Literature review

Introduction to Theme, thematic progression and thematic variation across disciplines

In SFL, language resources are understood as 'clustered' according to three linguistic metafunctions which support the human disposition to '*interact communicatively*' and '*interpret experience by organizing it into meanings;*. (Halliday, 1993:95):-

The interpersonal metafunction relates to '*interact[ing] communicatively*' and is realised through '*a rich array of speech functions, modalities, personal forms…. and various dimensions of force and attitude*' (op cit: 107);

The ideational metafunction relates to '*interpreting experience*' and represents the processes of the outside world as well as '*those of inner consciousness and the logical-semantic experiences processes which may obtain between one process and another*' (op cit).

The textual metafunction weaves together these ideational and interpersonal elements to create discourse and is realised through grammatical resources as well as resources which operate above and beyond those of grammar. A principal resource operating 'above the grammar' is that of Theme/Rheme patterning which is key to management of information flow across a text.

While identifying Theme simply as '*that element which comes in first position in the clause,*' in 1994 (30), 20 years later Halliday and Mathiessen (2014: 205) define it more specifically as comprising everything up to and including the initial ideational element of the clause. Usually, in 'unmarked Themes', Theme and grammatical subject are conflated as in the examples to follow:-

Topical Themes

Theme	Rheme
Pokemon cards	*have been a worldwide problem*
People	*swap cards and learn to be co-opertaive*
This	*can be stopped by having a set day.*

Halliday and Mathiessen (2014: 105) refer to this ideational element as the 'topical Theme' but acknowledge that other elements may precede it. These elements, that are either textual or interpersonal in function, are regarded as 'orienting Themes' (North, 2005: 437).

Textual and interpersonal (orienting) Themes

Theme			Rheme
Textual Theme	**Interpersonal**	**topical**	
Firstly		*the way girls and boys are treated*	*has changed.*
	I think	*this*	*is a very good thing.*

Marked Themes Whilst subject-in-topical-Theme-position is the 'unmarked' order for a declarative clause, other ideational elements may also precede the subject and are identified as 'marked' Themes, the most usual form of which '*is an adverbial group, example today, suddenly, somewhat distractedly*' (Halliday and Matthiessen, 2014: 98).

Analysing patterns across successive Themes

Not only do Themes represent the 'point of departure' of each clause but they also operate collectively to construe a particular representation of knowledge or experience across textual sections. Two identified patterns are particularly relevant to understanding writing development.

1.Spoken language tends to be characterized by personal pronouns in topical Theme position - referred to by Berry (1995: 61) as '***interactional thematisation'***. In formal written language, typical thematic patterns have evolved differently and abstract, expanded noun-phrases are often found in topical Theme position *(informational thematisation)*. Frequently these are characterized by 'grammatical metaphor' or nominalisation.

Example of interactional thematization – note the 'interpersonal Themes'	**Example of informational thematization (including nominalisation)**
I think year 4 should use pens because pens are much broader *I think year 4 shouldn't use pens because pens smudge a lot.* *I think year 4 should use pens because pencils sometimes do smudge like this.*	*The big disadvantage of Pokemon cards is that they cause fights.* *When Charizard (at the time the most rare card in the country) found its way into the school everyone went mad*

The use of expanded and abstract noun-phrases in Theme position means that a complex process which would be represented over several clauses in speech can be presented within a single clausal element. While 'informational thematisation' represents a formal construal of reality, it facilitates '*technicalisation*' of and '*reasoning abou*t' the world *'enabling writers to shift up in levels of abstraction*' Ravelli (2011: 195) aware of a meta-perspective on lived experience and texts which are '*well-oriented to a reader looking for information*' (Martin, 1986:59).

Over stretches of texts, various patterns of thematic progression can be tracked, *'either in terms of maintaining the topic or shifting the topic in various ways'* (Christie and Derewainka 2008: 21) . Danes (1974, 1995) identified **three prevailing patterns of thematic progression** which continue to be of interest to Theme research (Hawes, 2015). Following Hawes' (2015: 95) definitions but with examples from my own data-sets these are:

Constant progression – Theme remains same across multiple sentences	**Simple linear progression** – rheme of sentence 1 becomes Theme of sentence 2	**Derived progression** - the themes connect to an explicit or implicit overall 'hypertheme' of the whole text (which could be shown as Th(D1), Th(D2), Th(D3)
I think year 4 should use pens because pens are much broader I think year 4 shouldn't use pens because pens smudge a lot. I think year 4 should use pens because pencils sometimes do smudge like this.	*The boy who got the card was Kally in year six.* ***He*** *traded with Sid in 5D*	*Schools have changed considerably over the past 150 years. Firstly, the ways girls and boys are treated has changed.. Also there was a lot more discipline…*

In recent decades, learning how to manage 'flow' across lengthy texts has been identified as particularly important to successful writing in both secondary and tertiary educational contexts (Christie and Derewianka, 2008; Ravelli, 2011). **MacroThemes** (akin to a topic sentence) and **hyperThemes** which operate both prospectively and retrospectively at the beginnings of paragraphs are important in this regard.

Disciplinary variations to thematic progression

A growing research tradition focuses on cross-disciplinary thematic variation; for example, academic writing in the Sciences, built upon an '*established framework of assumptions*', North (2005: 449) tends to be less characterized by inter-personal and marked 'circumstantial' Themes than that characteristic of more iterative, interpretative disciplines such as the Social Sciences where knowledge is considered to be '*more constructed and contested in nature*' (op. cit.). Interesting in relation to the current study is North's research which identified differences between assignments written by Arts Major and Science Major students taking the same 'History of Science' module; the Science students were less likely to use interpersonal and marked circumstantial Themes to qualify the source of scientific argument. Such research suggests that, by undergraduate level, students have been socialized in to the '*particular orientations to knowledge construction*' (op. cit) of academic disciplines.

Prevailing perspectives on the evolution of thematic options in novice writing

Developmental trajectory

The scant extant research alluding to or specifically focused on primary-aged children's Theme use (Perera, 1984; Berry 1995; Christie and Derewinka, 2008) all identify '*late childhood to early adolescence'* (Christie and Derewianka, 2008) as the *'critical'* period for expansion of thematic resources. This is the time when the transcriptional elements of writing are becoming automatised and children begin on the '*important transitional passage away from forms of language like those of speech, towards forms closer to mature writing'* including *'the information packed clause structure characteristic of academic registers*' ((Schleppegrell 2004: 78–9) which will be required to '*theorise about the world'* (Ravelli, 2011: 104).

The table below summarises research findings of developmental change from '*early childhood (6-8)*' to '*late childhood to early adolescence (9-12)*' in relation to orienting and topical Themes and thematic progression (age phases and all examples from Christie and Derewianka, 2008 pp 212-244)

Orienting themes			Topical theme	Modes of thematic progression
Textual Theme	**Interpersonal**	**(marked) Experiential**		
Mostly Conjunctive adjuncts early on – Firstly, secondly but, also Use of headings to order information in procedural recounts.	Frequent use of personal projecting clauses (I think) Gradually increasing awareness of audience & attitudinal expression expressed through adverbs/ adjectives. Occasional use of modal verbs.	Adverbials of time (increasingly precise), some of manner and place – example circumstantial adjuncts More deliberate adverbial fronting *once we had finished our lunch; with the telescope, he was able to look up to the stars . .*	In early writing, personal pronouns dominate. With increased age, participants are realized in expanded nominal groups, involving both pre-and post-modification of Headword. Gradually increased use of grammatical metaphor, passive voice and informational thematization.	Early texts characterised by constant progression, frequently through personal pronouns. From adolescence, growing capacity to manage 'flow' of longer texts through macro and hyper Themes to produce texts representative of a 'Derived Progression'. Also, increased 'pick up' and thematization of matters expressed in complete prior clauses -Simple Linear Progression.

Importance of a wide repertoire of thematic options to analytical, critical thinking

Despite a developmental trajectory towards broadening thematic options from the beginning of elementary education, it is acknowledged that many older students continue to use a limited range reducing scope to exploit the affordances of written discourse to construe knowledge and experience from alternative perspectives. With reference to research with 13-16 year olds, Myhill (2009a) identifies that '*weaker writers*', irrespective of age, tended to repeat the personal pronoun in theme position leading to '*writing that was very plot-driven, with limited description or emotional contextualisation*'. Hawes (2014, 97) observes that in the writing of international adult students on a pre-MA course '[constant thematic progression] *was used disproportionately often by weaker students, resulting at*

worst in a series of unrelated statements about a topic theme'. Myhill (2009b, 411) argues that the ability to produce '*knowledge-transforming*' writing to be *'in part at least, about linguistic development specifically in terms of how sentences are shaped and patterned'*. This link between writing for 'knowledge transformation' and access to repertoire of thematic resources is also stressed in Ravelli's (2011: 104) assertion that '*in order to theorise about the world… [emergent academic writers] must be able to give names to things and connect these names to each other*'.

Three perspectives on learning contexts which foster 'theorizing about the world'

It is already clear that expansion of thematic resources will be premised on inter-related linguistic and conceptual development. While very little research has been conducted into expansion of thematic resources at any age, what follows represents three contrasting but complementary perspectives on instructional approaches and/or semiotic resources which have the potential to foster primary children's awareness of exploiting Theme position in order to theorize.

1.Learning the language of theorizing through contextualised immersion in academic discoursers

Principally In the context of secondary education, research informed by SFL (Lemke, 1990, Coffin 2006; van Drie 2017) illustrates the symbiotic relationship between discipline-specific linguistic resources and conceptual understanding when learning academic disciplines. Lemke's extensive research in middle school Science classrooms illustrates how oral immersion in scientific reasoning can scaffold the appropriation of abstract naming and reference patterns. Through the 'Talking-Science' programme students were inducted intro subject-specific reasoning which combined both '*the key terms and their inter-relations*' with a structural pattern for organising them (Lemke, 1990: 121).

Similarly, with reference to learning in the history classroom in a Dutch KS3 context, Van de Drie and van de Ven's (2017) case-study illustrates how subject-specific grammatical metaphors ('*the separation of church and state'*) which were modelled by the teacher, and then internalized through classroom discourse, were directly used in subsequent independent writing to establish patterns of historical reasoning across paragraphs.

Such research suggests that contextualized subject-specific instruction can indeed support appropriation of conventions for informational thematisation and derived modes of thematic progression.

While there is increasing research interest in similar interventions in the elementary context (Lim and Kellogg, 2008; Wallden, 2019) there is debate about the extent to which subject-specific informational thematization learnt through teacher modelling and contextualized dialogic talk in class is translated into children's subsequent independent writing; Wallden's (2019) case-study focused on genre-based pedagogy in the field of Geography with multilingual grade 6 students in Sweden. During the early, 'deconstruction' discourse-dominated stages of the unit the teacher '*unpack[ed] the condensed meaning*' of abstract nominalisations such as 'precipitation'. However, in the later 'preparation of individual construction' stages, the instructional focus seemed to shift to textual structure - the structuring of a two sided argument per se – and opportunities to scaffold *'disciplinary reasoning and argumentation*' (op cit:54) were sidelined and resultant texts were characterized by the interpersonal thematization. Such insights serve as a reminder that specialized forms of academic discourse evolve and are sustained amongst those with depth of knowledge and authority with regard to the subject and familiarity '*with the ways experience is typically construed in their communities'* (Hyland, 2016: 25). As Klein and Boscolo observe:- '*Writing in the disciplines, with the goal of producing texts similar to those of professionals is a goal that is authentic for students in graduate or professional school. However, it is less authentic for students at elementary level.'* (Klein and Boscolo, 2016: 326).

North's research (2005) with under-graduate students suggests that it is not disciplinary discourse knowledge and familiarity per se which drive expansion of thematic resources, but also the writer's self-directed goals and confidence to adopt the authoritative stance implicit in some textual and interpersonal Themes. In her research, mature students (over 40) were significantly more likely to use textual Themes leading her to question whether *'the ability and willingness to take a more authoritative stance is affected by maturity as well as by familiarity with the discourse of the discipline'*(op cit: 446).

2. The emergence of theorizing represents shifts in compositional goal setting

Cognitive psychology has made a significant contribution to the field of writing development field, clarifying how writers' goals and self-regulation of the writing process evolve with experience but also as a result of focused interventions. Research into the contexts which promote the transformation (rather than simply the recall or '*telling*') of knowledge (Bereiter and Scardamalia 1987) illustrate that primary aged children will and do use the composition process to '*theorise about the world*' (Ravelli, 2011: 104) when sufficiently motivated.

A range of experiments show the potential effectiveness of interventions which teach '*specific subgoals that focus on genre-relevant information… provid[ing] clear direction on what needs to be included … and enabling the writer to monitor writing performance'* (Ferretti and Fan, 2017: 303). With regard to argumentation it appears that '*teaching strategies both to justify their standpoint with reasons and to critique and rebut the reasons for an alternative view-point'* (op cit 204) was found to be particularly effective with 6th grade (but not 4th grade) students.

Kuhn et al's (2016) case-study illustrates how promoting students' active engagement by selecting issues directly relevant to their lives and opportunities for meaningful oral debate increased the likelihood of students understanding the underlying affordances and usefulness of such strategies. The two year intervention with educationally disadvantaged American middle school students' included many iterations of a 13 session topic cycle aimed at raising students' capacity to integrate contrasting perspectives and present evidence to exemplify their points. 'Deep engagement' in the topical subject matter prior to writing was facilitated by, for example, carefully choosing subjects for debate directly relevant to students' lives and providing opportunities to read and discuss model arguments relevant to both sides of the debate. The results were encouraging, demonstrating a trajectory of gradual development which built from one cycle to the next, characterized by essays that '*addressed both sides of the issue, addresses strengths as well as weaknesses of the opposing position and sought to connect opposing arguments.* (op cit: 113). While not the focus of Kuhn et al's analysis, it is possible to extrapolate from their data the impact of this cognitive work on the participants' thematic resources.

While early assignments were characterized by concrete nouns & names in topical Theme position, an absence of orienting Themes and little in the way of progression between successive Themes, those written at the end of the final cycle were characterized by:-

- Abstract noun-phrases and nominalization as topical Themes:- *the teens; evidence; education in adult jails;*
- Orienting textual Themes to manage the flow of information across sections – *However, overall;*
- Orienting marked experiential Themes to shift thematic focus to an alternative view point '*Although they can have education in adult jail*….
- More 'simple thematic progression' as children expanded arguments across sentences, 'new' information from the rheme of one thematized as 'given' in the next:- '*Evidence shows that 70% of prisoners released from juvenile prison are rearrested in the span of the next three years. This means that*….

It is well-established that the challenge of knowledge-transformation is mediated by opportunities to write about the familiar (example Galbraith 2009), because '*the knowledge accessed by the short-term working-memory is more interconnected*' (McCutchen 2000, 19) and potentially easier to manipulate and 're-construe'. Further, expressive writing about the personally important is understood to 'elicit' theorizing as novice writers 'tune into' the cathartic affordances of reflecting on their own experiences. '[Expressive writing] *may initiate cognitive processing in terms of searching for a coherent meaning for the traumatic or stressful event and allow reappraisal of the situation. Indeed, several studies have shown that written emotional disclosure elicits meaning-making processes such as searching for causal explanations and interpretation of the events* (Pennebaker et al (1997) quoted in Fartoukh and Chanquoy, 2020: 506).

3. The communicative affordances of theorizing are 'realized' through the 'dialectic between form and meaning'

In common with sociocultural researchers, social-semioticians Kress and Halliday agree that language is '*re-made*' (Kress 1996, 228) in social contexts as the meaning-making potential of new forms becomes relevant to writers' social or intellectual needs. Integral to the analytical approach of both theorists is the role that appropriated forms themselves play in providing the building blocks for further language learning. Halliday (1993, 105) proposes that linguistic and conceptual growth evolves in a reciprocal, 'dialectic' (Halliday 1993, 105) process: '*whereby (a) from acts of meaning children, construe the system of language, while at the same time (b) from the system they engender acts of meaning* (op cit).

Halliday (1993) substantiates this feature of language learning through a comprehensive analysis of infants' earliest language learning. Of greater relevance to understanding the expansion of primary children's thematic resources is Kress' account of the evolution of the units of the sentence and paragraph in children's writing. Drawing on multiple texts written by a small number of children throughout their mid childhood (7-13), Kress charts the evolution of the sentence from '*loosely constructed joined clauses related to the same topic… to a structure in which a more restricted topic is treated by a closer integration of clauses*'(op cit: 87). A dialectic between the evolving form and its meaning potential is clear through each iteration:- '*segments of clausal chains are taken into the sentence…. Once within the sentence, there is a need to integrate components more closely, and this leads to greater unification and integration within the sentence by means of more complex syntactic structures.*' (op cit: 76). '*Restricted topics*' are signalled in Theme position and possibilities arise for the writer to establish their own connections between information units. Further, awareness is raised that 'topic' and its representation are separate and the representation is under writer control. Kress' account of the later emergence of the paragraph in children's writing also draws attention to the impact of 're-making' conventional written information units on possibilities and responsibilities for the writer to control the information flow and the construal of subject matter through manipulation of Theme position '*The emergence of the paragraph permits the child to structure arguments in a new form…. The effect on the sentence is to permit greater precision, integration, reduction and compression of content and greater complexity, both cognitive and linguistic…. Paragraphs attain a status derived from the structure of the text itself, rather than (as in narrative) from 'the world'. ….so the demands (however adequately or inadequately grasped) of the subject matter become foregrounded.* (op cit: 97).

Section Summary and Research Questions

The expansion of thematic resources is an essential element of writing progression necessary to the analysis of and reflection on knowledge and experience. While thematic conventions have evolved amongst writers with depth of subject knowledge and authority relative to novice writers, the scant

research there is on Theme suggests that resources begin to expand in the critical period between primary and secondary education.

Despite little research specifically focused on Theme development per se, cross-disciplinary research can be usefully deployed to illuminate instructional contexts which potentially nurture its growth.

Recent SFL research has this express focus and has illuminated how knowledge of key-terms and their inter-relations can be synonymous with knowledge building in disciplinary learning. Also discussed however was that there may be limited opportunities for primary aged children to begin to 'theorize' and thereby 'remake' new thematic resources when writing in subject disciplines by virtue of limited their depth of subject knowledge and authority.

Current and copious cognitive-psychological research has recently revealed promising strategies for promoting goal-directed writing. Such writing demands a 'levelling up' from everyday language and can elicit the application of tacit knowledge in the search for new perspectives on events. However, bespoke research on expanding thematic options is required to understand more specifically the linguistic models and writing tasks which might most effectively foster written theorizing.

Rather than being concerned with how mature writing conventions are 'acquired', social-semiotic accounts focus on how and why the writer comes to 're-make' a convention to meet their own meaning requirements and the dialectic between new forms and their potential meaning affordances in this 're-making' process. Though barely used as a tool for analysis in the Primary context, the potential of this writer-oriented approach to illuminate the 'micro-genesis' (Lim and Kellogg, 2008:208) of forms across a series of writing events is evidenced through Kress' seminal account of the emergence of the concept of sentence in children's writing. However, the next steps in the dialectic between form and meaning as children begin to exploit the affordances of shorter, more focused sentences to build explicit relations across texts is, as yet, unexplored.

One research aim therefore was to draw on Hallidayan SFL and linked analytical approaches to chart the evolution of thematic resources within one selected genre – that of argument. The other aim was to better understand the 'contexts of situation' which appear to nurture the expansion of such resources. While the extant research discussed above suggests that contextualized modelling of linguistic forms and opportunities to consider subject matter from new perspectives will play a role in this expansion, it is only through detailed analysis that children's 'ways in' and 'barriers' to new worlds of meaning can be fully clarified.

A key feature of language learning identified by Halliday is that of the 'magic gateway' (1993: 98). The strategy of *'finding a special way in… to a different world of meaning. …The learner may sense where he or she has to go next, but have to find a route by which to pass'.*

By analysing texts or sections of texts which are particularly 'hybrid' in terms of Theme use, the research seeks to identify *'specific gateways.. or routes'* (op. cit.) into new thematic resources and the shifts into theorizing and abstract worlds they afford.

Research question

This paper addresses the questions:

1. 'What do differences between arguments written at time 1 (8-9 years) and time 2 (9-10 years) reveal about the expansion of children's thematic repertoire in the argument genre?
2. *What do hybrid texts reveal about potential gateways and challenges to the appropriation of new modes of thematic progression?

Materials and Methods

To facilitate the analysis of thematic progression over time, a longitudinal design was adopted with a focus on texts written by the same children at regular intervals over two years. The labour intensity of linguistic analysis demanded a small sample size, in keeping with qualitative research design (Berry 1995; Kamberelis 2001; Wallden, 2019).

Student sample

Twenty-four students were selected to be large enough to support the identification of significant trends but small enough not to compromise the quality of linguistic analysis. Texts of arguments were collected every half-term for 2 years. Due to attrition the final sample size was seventeen.

Overview of data set:

Data set one: Argument texts from research year 1 and 2			
school A		**school B**	
Emine, Winston, Omar, Darren, Tanesha	Millie, Shanti, Osman, Sirdar,	Kate, Maria, Mai-Shu, Howard	Andrew, Ned, Juan-Carlos, Janet

The sample represented children across the ability range from four classes in two London schools. Schools were similar in terms of student intake, performance and religious affiliation and both followed the National Curriculum.

Data collection

To ensure consistency of teacher approach, I taught classes for lessons in which the sample texts were generated, facilitating 'thick description' (Geertz 1973, 6) of the context of each writing task. Observations and discussions with teachers enabled me to replicate typical class writing conditions while ensuring the pre-writing preparation for the sampling point task was consistent across the classes. Finally, samples of children's usual class work were collected to ensure texts written at sampling points were representative.

Literacy lessons leading up to both sampling point tasks had focused on argument and/or persuasion. In Y4, both schools scaffolded the writing of letters of persuasion beginning with an initial thesis followed by points of exemplification (appendices 1 & 2). In Y5, school A favoured writing frames to scaffold new genres. The frame for persuasion (appendix 1) models an introductory topic sentence setting out a main thesis followed by points of exemplification. School B didn't use writing frames but provided a two-column table divided into points for and against the proposition- 'should ball games be allowed in school' with a row provided at the bottom for a final conclusion. In all sampling point lessons, I introduced the writing activity as an argument task in which the children could choose to argue either for or against a proposition or consider points both in favour and against. I didn't provide any kind of writing frame but, prior to writing, as a group, we generated and orally rehearsed both the arguments for and against the proposition. The topics for discussion were selected to be ones likely to engage the children. My intention was to minimize my influence on the writing produced. However, in my role as substitute teacher, in one of the Y5 classes I inadvertently suggested a starter sentence in response to

whole class discussion. As will be discussed in the findings, this inadvertent and unplanned intervention had an impact on available thematic options.

Data analysis

The complete data set comprised arguments written by each individual at the two sampling points and descriptive observations of each writing event. The first analysis phase focussed on systematic description of Theme position and modes of thematic progression in each text and was informed by the following principles:

1.Trust the writer: In seeking to understand children's evolving thematic resources all available cues were considered to understand the child's intended meaning.

2. Consider the text's context: linguistic structures and features were considered within the context of the whole text and description of the writing event.

The internal validity of the research required clear definitions of theme and modes of thematic progression. While there is consensus in the field that Theme '*is the ground from which the clause is taking off*' Halliday and Matthiessen (2014:) and to restrict thematic analysis to declarative main clauses, there is some disagreement regarding how much of the clause to count as 'thematic' . According to Halliday and Matthiessen (2014:) Theme '*compris[es] everything up to and including the initial ideational element of the clause*' even where this is a 'circumstance' (adjunct) rather than traditional 'subject' of the clause'. However, '*a number of researchers have suggested that the subject should be regarded as necessarily thematic'* North (2005:437) and, arguing with reference to McDonald (1992:539), '*the subject slot …is the most important spot for determining what a writer is writing about and how questions of epistemology, construction of agency enter the writer's thinking*' (North, op cit: 434). As such, and also aware that the subject-slot Theme use was likely to shift significantly within this age-phase, it was particularly important to align to the more inclusive definitions of Theme. Separate categories for '*topical*' (subject) Themes and '*orienting*' Themes were therefore adopted in the analytic framework and were directly informed by North's (op cit 438-439) definitions : -'*Topical themes are distinguished from [optional] orienting themes in that they fill participant roles within the clause…..* *Elements that occur before the topical themes are regarded as orienting themes, and can be classified under the three headings, textual, interpersonal and experiential'.* Danes' (1974) categories were adopted to identify the modes of thematic progression in each text.

The analytic frameworks generated were used to compare individuals' use of theme position and thematic progression from sampling point 1 to 2 and then to identify the general direction of change across the cohort. Texts or sections of texts which were particularly 'hybrid' (Kamberelis, 2001) were identified and scrutinised to illuminate any external or internal factor potentially providing a gateway.

Findings

Findings will be presented in two sections (A) analysis of the expansion of thematic resources and (B) gateways and challenges to experimentation.

A: Analysis of the expansion of thematic resources between Y4 and Y5

To gain an overview of the differences between the Y4 and Y5 texts, it's useful to present three children's Y4 and Y5 texts in full. While not the original handwritten versions, the reproductions below are faithful to the child's spelling punctuation and line-spacing. These sets of texts were selected for sharing and analysis because they are characteristic of cohort-wide thematic change between the Y4 and Y5 whilst also being indicative of the varied responses which characterized the Y5 arguments.

Overleaf – Sirdar, Shanti and Andrew's Y4 and Y5 argument texts:

Sirdar's Y4	Shanti Y4	Andrew Y4
I think Y4 children should use pens to make there writing stand out. *They should use them because they don't break, whereas pencils break.* *They should use them because they don't need to be sharpened but people spend time sharpening.* *They should use them because they don't smudge whereas pencils do.* **Sirdar's Y5** *I think Pokemon cards should be banned altogether. here are my reasons firstly people mugg others just for their pokemon cards. Secondly people break into eachothers houses just for pokemon cards. Another reason is that they've banned them in school because of arguments once my classmates took half an hour just for one argument. The last reason that I am going to give is people get paranoid about them one of my mates charlie hardly ever plays with me because of that cardboard with silly pictures.*	*1.I think that year four should use pen because if they don't start using pens at this age they will feel confedent using pens when they grow up.* *2.If you make a mistake when you are using you could use some tipex or you could cover the mistake aswell.* *3. Somtims when you are using pencils the led might break and they have to go and sharpen it but with a pen you won't.* **Shanti Y5** *Recently pokemon cards have been banned in our school but now this has happened nobody at school has nothing to do. Although they are banned many children still bring them into school and when they get stolen we can't talk to the teachers otherwise we will get told off for bringing them in.* *Another reason is that school is the only good place for children to trade cards.* *Aswell when we trade these pokemon cards we are learning different experiences and learning things that you would do in a proper job.* *So pokemon cards should not be banned because half of the school still bring them in and the children are learning different experiences and doing things you would do in a job.*	*1.I think year 4 should use pens because pens are much broader* *2.I think year 4 shouldn't use pens because pens smudge a lot.* *3.I think year 4 should use pens because pencils sometimes do smudge like this.* *4.I think year 4 shouldn't use pens because sometimes children leave the lid off and then the pens dry out.* **Andrew Y5** *I think Pokemon cards should be allowed in school but people should be very careful with them. Firstly, you shouldn't brag about them and going round the playground showing off wouldn't be a best choice. Pokemon cards have been a worldwide problem. From here to Timbuktu people have been stabbed, mugged and even shot for pokemon cards. The thing with pokemon cards, when you go anywhere boys and girls will ask you things like 'Have you got cards?' and in shops, 'Are you buying pokemon cards? Are you opening them?' And they don't always want to do trades with you. The big disadvantage of pokemon cards is that they cause fights. When Charizard (at the time the most rare card in the country) found its way into the school everyone went mad. The boy who got the card was Kally in year six. He traded with Sid in 5D and then he traded in Vini in our class. Vini traded with him for a fake Zapdos (which at the time he didn't know was fake) and a few other cards. For one day Vini had the rarest card in the country and then Sid realised the Zapdos was a fake and then the next day Sid followed Vivi around and tried to persuade him to swap back.* *I think the solution of the next craze would be not to play for keeps and try not to get into fights about them.*

Full analysis of these texts is forthcoming in section B. Meanwhile, whole-cohort shifts in Theme use between Y4 and Y5 are easiest to understand when presented in table form:

A summary of the thematic resources evidenced in the argument texts in Y4 and Y5

Thematic element	Y4 typical example (s)	Y5 typical example (s) and frequency	Patterns of interaction between thematic resources used in the Y5 texts
macroTheme	None in evidence, that is, point 1 also serves as introduction	example 1 *I think Pokemon cards should be banned altogether* example2 *Recently pokemon cards have been banned in our school but now this has happened nobody at school has nothing to do.* example3 *. I think Pokemon cards should be allowed in school but people should be very careful with them.* Feature of 14/17 texts	Informed by models provided during in school instruction. The macroTheme has a direct impact on overall text structure, other thematic elements as well as the mode of thematic progression.
hyperTheme	NA	*example 1 The big disadvantage with Pokemon cards is that they cause fights.* *example 2 - I also think that they actually did cause arguments and fights.* Feature of 7/17 texts	Informed by models provided during in school instruction as well as by initial macroTheme. HyperThemes have an impact on subsequent text/paragraph structure as well as on subsequent Theme selections. They frequently include textual, interpersonal and experiential orienting Themes.
Coda A sentence which has some reviewing /concluding function	NA	example 1. *I think the solution of the next big craze would be…* example 2. *Eventhough people have fights and their cards have gotten stolen, my cards have never been stolen.* Feature of 8/17 texts	Connects back to macroTheme Frequently includes orienting Themes and sometimes repeats an element of the macroTheme .

Textual Themes	*Numbers1,2-* used by 4/17 in each sentence. **Conjunctive adjunct** *Also* – used by 1 child twice	**Conjunctive adjuncts** – *Another/my first/second reason is./Also.* - used by 7/17 throughout text **Appositive adjunct** – *For example* – used by 1/17, once. **Causal adjuncts** – *So, solution=,* Feature of 6/8 codas.	Mostly, **conjunctive adjuncts** are similar to those modelled in the school B writing frame and indicate the relationship of the clause to macroTheme and / or hyperTheme. They tend not to co-occur with other orienting Themes. The **'appositive adjunct'** is used to make a direct reference to the macroTheme. **Causal adjuncts** signpost the intended relationship between the final sentence and the preceding text.
Interpersonal Themes	**Personal projecting clauses** *'I think/I know'* clauses used at least once by 14/17. 28 'I think' clauses used total.	**Personal projecting clauses.** **'***I think/I know '* used at least once by 11/17 students use.. 18 'I think' clauses in total. **Impersonal projection** *Some people say/ I heard on news'.* **Comment adjuncts** *Eventhough I don't like Pokemon cards, I think…* *I also think that they actually did… cause fights'*	Net decrease in '**personal projecting' clauses'**. Repetition of 'I think' element made superfluous by **'macro-Theme/ hyperTheme.** Feature used more strategically – example ,as in Andrew's Y5 text above, just in introductory and concluding sentences. Used in conjunction with **adverbials of concession** and **comment adjuncts** in coda position to explicitly clarify one's own perspective. **Impersonal projection**- in most cases used in '**hyperTheme**' position to signify counter argument.
Experiential Themes	**time** -example' *when you rub out…* (used by 5/17, seven times in total) **Condition** – 'if' clauses *example 'if your pen runs out…* (used by 8/17 often in multiple times).	**time** – example *'in our school before they were banned'* used by 5/17, 12 times in total. **Condition** **'**if clauses' used by 4 children at least once *'if they supervised children…* **Place** – example *From here to Timbukto* (used by 3 children at least once) **Concession** –example *'although they are banned'* used by 4/17 once.	In contrast to Y4, in Y5 temporal adjuncts were more commonly used to reference specific events contributing to text staging (see '*when*' and '*for one day*' in Andrew Y5 above). **Condition** – **'**If' clauses mostly used in as part of solution in '**coda'** **Concession** – In all four cases, used at a 'nexus' point in the argument, either in **coda** or to introduce a 'counter-argument' in a **hyper-theme**. Often co-exist with **interpersonal** elements.

Topical Themes	1st, 2nd or 3rd person pronouns often repeatedly Nouns- typically *Y4/ pens/pencils* (12/17 only used these nouns) Noun phrases – *'fountain pen'; 'children in Y4'* used by 2 children once. Other Gerund form of verb – *'Using pens'* used by 1 child once	Slight decrease in 1st and 2nd person pronouns and increase in 3rd person. Nouns – greater variety, including collective and abstract nouns *'people'; 'everyone'.* Noun-phrases (used sporadically by 10/17) Predicated-Theme *The boy who got the card* (used by 1/17 once) Anaphoric demonstrative pronoun *This u*sed by 3/17, 3x by one	Macro and or hyper Themes reference the thesis statement which therefore does not need to be repeated in each sentence. Therefore, topical Theme introduces a unique focus for the sentence/ point. Many noun-phrases in topical Theme position which often incorporate interpersonal elements - *'my cards; my classmates; someone in my school; one of my classmates Charlie.* Anaphoric demonstrative pronoun In all instances, these are used to thematise a previous rheme.
Modes of thematic progression	Orienting and subject Themes tend to be repeated across clause complexes. (particularly evident in Sirdar and David's Y4 texts). 'New' topical Themes (example 'led' in Shanti's text) tend not to relate to previous Themes/Rhemes. No other patterns of thematic progression in evidence	Derived thematic structure in evidence in all or parts of all but three Y5 texts; that is, 'new' Themes are 'derived' from the macro or hyper theme:- *'Pokemon cards can cause trouble. People..* Simple linear progression The rheme of the previous sentence becomes the Theme of a subsequent sentence – evident in 8/17 Y5 texts:- *'The boy who got the card was Kally in Y6. He …* Other 'cohesive' links between Themes Where Themes are repeated, there is a tendency to use synonyms *'Pokemon cards… The cards…*	Derived thematic structure is dependent upon macroThemes and hyperThemes. Simple linear progression more likely in the Y5 texts subdivided into paragraphs.

Thoughts on changes to Theme use between Y4 and Y5

A form of macroTheme was modelled in both schools in Y4 and Y5 but it is only in Y5 that the children begin to apply the form independently to their sampling point text suggesting it is appropriated within their writing repertoire. From the available data, it isn't possible to know from the point between Y4 and Y5 when children's schema for argument evolved in this way. It is clear however that this superordinate and forward-focused structure has a significant impact on the expansion of other thematic resources employed in the Y5 texts as well as on modes of thematic progression.

While the adoption of macroThemes is almost universal across the cohort, some new thematic resources, (hyperThemes, adverbials of concession, anaphoric demonstratives, simple-linear- progression) are found in **some** parts of **some** Y5 arguments but have not been universally adopted in the same way. As discussed in the literature review, the latter resources are pivotal in relation to argumentation and writing for reflection as they elicit (or are an outcome of) the 'naming' of abstract concepts (hyperThemes), the integration of alternative viewpoints (adverbials of concession) and referencing these in some way (anaphoric demonstratives) before exemplifying and elaborating a point of argument across clause complexes (simple-linear-progression).

A second immediately observable difference between Y4 and Y5 arguments is the homogeneity of those written in Y4 compared with the heterogeneity of those written in Y5. To a large extent, differences between the Y5 texts can be explained with reference to the macroTheme adopted by the writer, three types of which are discernible in the data. Section B details how and why the type of macroTheme adopted has a direct impact on the writer's subsequent opportunities for exploring new thematic options and, therefore, engaging with the written-mode's affordances for reflection on and analysis of knowledge and experience.

Section B :- Analysis of the affordances of three distinct macroThemes for structuring text flow and elaborating on, substantiating and qualifying argument

In Y5, 12 of the 17 participants produce one of three very similar macroThemes which is clearly shaped by previous in-school instruction or by the starter sentence inadvertently shared by the researcher.

Name	school	class	macroTheme
Darren	A	1	*There are sevrol reasonds that pokemon cards shouldn't be banned*
Omar	A	1	*There is a number of reasons why pokemon cards should be aloud*
Sirdar	A	2	*I think Pokemon cards should be banned altogether. Here are my reasons*
Millie	A	2	*In our school Pokemon cards have been banned.*
Osman	A	2	*Recently pokemon cards have been banned in our school and we don't think they should.*
Shanti	A	2	*Recently pokemon cards have been banned in our school but now this has happened nobody has nothing to do.*
Andrew	B	1	*I think pokemon cards should be allowed in school but people should be very careful with them.*
Janet	B	1	*I think Pokemon cards should be allowed in school even though I don't like them.*
Ned	B	1	*I think that Pokemon cards shouldn't really have been banned but I look at it differently as a child because I had quite a few Pokemon cards.*
Howard	B	2	*I think they should but they shouldn't because they are fun but cause trouble.*
Isobel	B	2	*I think they should be allowed but only if they keep under control*
Maria	B	2	*I don't think Pokemon TM cards should be allowed in school unless people are sensible with them.*

Type 1- Macro-Theme encapsulates a superordinate thesis for the whole text, foregrounding the topical Theme – particularly in evidence in school A

Sirdar's Y4 argument	Sirdar's Y5 Argument
I think Y4 children should use pens to make there writing stand out. *They should use them because they don't break, whereas pencils break.* *They should use them because they don't need to be sharpened but people spend time sharpening.* *They should use them because they don't smudge whereas pencils do.*	*I think Pokemon cards should be banned altogether. here are my reasons firstly people mugg others just for their pokemon cards. Secondly people break into eachothers houses just for pokemon cards. Another reason is that they've banned them in school because of arguments once my classmates took half an hour just for one argument. The last reason that I am going to give is people get paranoid about them one of my mates charlie hardly ever plays with me because of that cardboard with silly pictures.*

In school A, both Y4 and Y5 writing frames model a generic macro-Theme which can be easily adapted for persuasion or argument texts on any subject. In the model, a separate sentence introduces the

subject for discussion or, in the case of persuasion, the writer's opinion statement, followed by a type of generic cataphoric hyper Theme: '*There are a number of reasons*….'. That this structure is easily internalised and applied is evidenced by its ubiquity. Even class 2 children who began their texts differently, sought ways to introduce a list of reasons: Osman's second sentence begins, '*We should learn to play with eachother*' but ends '*here are some reasons why we should*'; …'.

New thematic resources evidenced in response to type 1 macroTheme:-

- generic macroTheme
- textual Themes linked to macroTheme**,**
- foregrounded topical Themes expressed as generalized nouns/ noun-phrases
- some experimentation with simple-linear progression

Dialectic between form and meaning characteristic of texts written in response to type 1 macroTheme

The ellipsis and pronominal reference evident between sentences 1 and 2 of Sirdar's Y4 text suggest that he had some whole textual awareness in Y4 and was seeking opportunities to avoid repetition across sentences. However, as a consequence of beginning his Y5 text with a superordinate macroTheme ('*I think Pokemon cards should be banned altogether*') what had been a repeated thesis statement throughout his Y4 text, can now be referenced by a textual Theme ('*Firstly, secondly…*').

As a result, his Y5 text is more coherent and less repetitive than the Y4 counterpart. Further each topical Theme becomes foregrounded and a point of argument encapsulated within a single clause – '*People mugg others just for their Pokemon cards*'. Potentially in response to this lightened sentence load, in points 3 and 4 Sirdar draws on his wealth of personal experience to exemplify points through additional juxtaposed clauses.

The initial macroTheme sets in motion a derived mode of thematic progression, which in turn sets in motion an additive form of text expansion. In the final two sentences, Sirdar's exemplifications adapt this pattern, a hierarchical, general- to- specific relationship established between initial and subsequent clauses. The topical themes of these clause-complexes ('*my classmates'; 'one of my mates Charlie'*) are expanded noun-phrases explicitly indicating their semantic relationship to the preceding rheme.

Sirdar could have constructed an argument specific hyperTheme to initiate discussion of each point of argument across a themed paragraph. Two factors suggest that such a construction is outside the 'semiotic habitus' of most children this age. Firstly, such a hyper-Theme would require some sort of abstract nominalisation encapsulating the argument to be represented (e.g. Pokemon cards cause arguments'. Such forms are barely evidenced throughout the data set. Secondly, as evidenced by his punctuation, like many peers, Sirdar is still in the process of establishing a syntactic (as opposed to semantic) concept of sentence (Kress, 1997). This means that when writing arguments, 'point' and sentence unit are frequently conflated. It is to be anticipated therefore that the default response to a generic macroTheme like the one modelled in school A will be one in which single sentence points are added in defence of a single view-point even where this inhibits scope for expansion and discussion.

Even in response to this generic macroTheme, there remains scope for linguistic and conceptual growth. When motivated by the opportunity to share relevant experience, the compression of content afforded by the initial macroTheme seems to invite Sirdar to establish complex, hierarchical relationships across clause-complexes.

However, '*The student who can only write, 'the first factor, the second factor, the final factor', without explaining what the factors are, is not in fact creating a strong structural framework'.* (Ravelli, 2011:

123). As will be seen, the two other macro-Theme options appear more conducive to the representation of a wider range of new thematic resources.

Type 2 - A Bespoke macroTheme and linked hyperTheme represent contrasting perspectives evidenced in Y5 arguments from school B

Andrew Y4	Andrew Y5
1.I think year 4 should use pens because pens are much broader *2.I think year 4 shouldn't use pens because pens smudge a lot.* *3.I think year 4 should use pens because pencils sometimes do smudge like this.* *4.I think year 4 shouldn't use pens because sometimes children leave the lid off and then the pens dry out*.	*I think Pokemon cards should be allowed in school but people should be very careful with them. Firstly, you shouldn't brag about them and going round the playground showing off wouldn't be a best choice. Pokemon cards have been a worldwide problem. From here to Timbuktu people have been stabbed, mugged and even shot for pokemon cards. The thing with pokemon cards, when you go anywhere boys and girls will ask you things like 'Have you got cards?' and in shops, 'Are you buying pokemon cards? Are you opening them?' And they don't always want to do trades with you.* *The big disadvantage of pokemon cards is that they cause fights. When Charizard (at the time the most rare card in the country) found its way into the school everyone went mad. The boy who got the card was Kally in year six. He traded with Sid in 5D and then he traded in Vini in our class. Vini traded with him for a fake Zapdos (which at the time he didn't know was fake) and a few other cards. For one day Vini had the rarest card in the country and then Sid realised the Zapdos was a fake and then the next day Sid followed Vivi around and tried to persuade him to swap back. I think the solution of the next craze would be not to play for keeps and try not to get into fights about them.*

Neither in Y4 or Y5 were school B children provided with a bespoke writing frame or easy to internalize macroTheme. However, in Y5 they had been encouraged to generate arguments reflecting opposing viewpoints. Arguments completed in class were written as bullet points, without an introductory macroTheme, in 'for' and 'against' columns with a final row for a conclusion.

Interestingly, it is the internalization of the representation of different perspectives, as opposed to modelled starter sentence, which directly informs the macroThemes produced by 6 of the 8 school B children. As in Y4, the Y5 arguments begin with the interpersonal Theme, 'I think', but, in contrast with Y4 the introductory sentences integrate either a concession or opposing viewpoint which foreshadows the presentation of a two-sided argument. Further, in contrast to the school A macroTheme, those produced by this group can't be simply referenced by successive textual Themes (firstly, secondly...); rather the

macroThemes themselves are suggestive of a discursive response and require the construction of some sort of bespoke hyperTheme serving two roles, both connecting back to the macroTheme whilst simultaneously introducing a specific viewpoint. Because of the column format of the argument written in class, prior to the sampling point exercise the children hadn't necessarily had experience in the construction of these superordinate sentences so the group re-purposed their existing lexico-grammatical resources in their unique responses.

New thematic resources evidenced in response to type 2 macroTheme

- Bespoke macroTheme encapsulating qualification, concession or opposing perspective (all)
- Bespoke hyperTheme (3/6) to introduce separate paragraphs
- Final coda (5/6)
- Causal adjuncts (example '*eventhough', so)* as textual Themes(4/6)
- Judicious use of interpersonal Themes to indicate writer angle on issue (4/6)
- Marked themes of time, place and manner (1/6)
- Nominalisations and thematic equatives used to deliberately exploit subject Theme position (1/6)
- Derived and simple-linear modes of thematic progression (4/6)

Dialectic between form and meaning characteristic of texts written in response to type 2 macroTheme

Paragraph-specific hyperThemes are in evidence in three children's texts which introduce a sequence of sentences presenting a range of points or exemplifying examples. These hyperThemes are cognitively challenging to compose, requiring both retrospection to the central thesis and prospection to the paragraph to follow. The children have differing linguistic resources to apply to this challenge but in all three cases, the structures created indicate both retrospection and prospection and some sort of mental representation of the whole argument.

-'*The big disadvantage of Pokemon cards is that they cause fight's* (Andrew)

- '*Pokemon cards can cause trouble'* (hyperTheme 1)…. '*Pokemon cards start fights but on the other hand they keep children busy and stop fights'* (hyperTheme 2) (Maria)

- '*Pokemon cards are also dangerous because if someone has got a Pokemon card that is really valuable someone else that hasn't got the card will do something that isn't very nice to get the Pokemon card'* (Janet)

The emergence of unit of paragraph disrupts sentence/point conflation and is facilitative of discussion & expansion through the 'picking up' (Ravelli: 105) of information introduced in previous rhemes into the topical Theme of subsequent sentence.

Potentially linked to the more discursive approach fostered by the school B macroTheme, is an interesting, **more judicious approach to the interpersonal thematic element.** Across all the Y4 texts, the projecting clause 'I think' was the ubiquitous preface to a point of argument, frequently repeated across the text. In the Y5 texts it still features but seems to be more deliberately used to present the writer's angle on content at strategic points in the text. After his introductory statement which acknowledges that '*as a child*' his perspective may be biased, Ned concedes, '*I also think that they actually did cause arguments and fights*' while both Maria and Andrew only include this projecting clause, as a 'book end' in their initial introduction and final concluding sentences.

The school B children were more likely than school A children to end their arguments with a conclusion. Those conclusions which do not begin with an 'I think' clause, begin with a clausal adjunct suggestive of

active consideration of the issue during the writing process. In many cases, the concluding statements are illustrative of a slightly changed perspective from that presented in the introduction. For example, '*People should be allowed to play Pokemon cards in school but if people keep fighting over them then they would not be allowed*' (Janet).

Particularly paragraph 2 in Andrew's text is representative of 'technicalisation' – the ability to use semiotic abstractions in Theme position in order to achieve seamless progression across sentences ('*The big disadvantage of Pokemon cards*'; '*the solution of the next craze*'; '*When Charizard, at the time the most rare card in the country, made it is way into our school*'; '*The boy who got the card*'). This sort of semiotic abstraction is rarely evidenced at this age (and unique in this data set), but in Andrew's case appears to be facilitated and motivated by **the opportunity to analyse the personally familiar from the perspective of distance afforded by the written mode.** The second paragraph strays into something more akin to personal recount than argumentation but, as discussed in the literature review, it may be that in this age-phase using the writing process to articulate alternative meanings and interpretations of personally significant events provides a particularly significant 'gateway' to linguistic expansion.

Type 3 – a modelled abstract macroTheme   evidenced in 3 Y5 arguments from school A class 2

Y4	Y5
1.I think that year four should use pen because if they don't start using pens at this age they will feel confedent using pens when they grow up. 2.If you make a mistake when you are using you could use some tipex or you could cover the mistake aswell. 3. Somtims when you are using pencils the led might break and they have to go and sharpen it but with a pen you won't.	Recently pokemon cards have been banned in our school but now this has happened nobody at school has nothing to do. Although they are banned many children still bring them into school and when they get stolen we can't talk to the teachers otherwise we will get told off for bringing them in. Another reason is that school is the only good place for children to trade cards. Aswell when we trade these pokemon cards we are learning different experiences and learning things that you would do in a proper job. So pokemon cards should not be banned because half of the school still bring them in and the children are learning different experiences and doing things you would do in a job.

The macroTheme used by three children in school A class 2 was informed by a model inadvertently provided by me as researcher/supply-teacher. In school A, a ban on Pokemon trading had recently been introduced and discussion about the topic was heated, 'the ban' dominating the pre-writing discussion. Almost as a throw-away remark to hasten a move into writing, I suggested the children could write about the ban using a title 'Recently Pokemon cards have been banned in our school'. For most, it was the school model which ultimately shaped choice of macro-Theme. For Shanti, Millie and Osman however, the suggested title became the macroTheme for the text itself, impacting on the thematic resources they used to respond.

New resources evidenced in response to type 3 macroTheme

- Relatively abstract macroTheme incorporating an agentless passive structure (3/3)
- Other passive structures in Theme position through subsequent sentences (3/3)
- HyperTheme to initiate new section of text (2/3)
- Final coda (3/3)
- Causal adjuncts as textual Themes (*so, infact*) (2/3)
- Judicious use of interpersonal Themes to indicate writer stance - (1/3)
- Marked themes of concession/time at nexus point in text (2/3)
- Anaphoric demonstrative (*this*) in Theme position (3/3)
- Simple linear progression as a mode of thematic progression (3/3).

Dialectic between form and meaning characteristic of texts written in response to type 3 macroTheme

It is possible that the children chose this starter-sentence because it offered a fresh perspective on a subject about which they were passionate; and passion is clear in these texts! It is also clear they were unlikely to have construed the ban this way in the absence of the model. With reference to the ban in his argument Sirdar writes 'they've banned them in school because of arguments' which is a more congruent representation than the model which includes an agentless passive drawing attention to 'the ban' itself rather than those who imposed it.

Building upon on the modelled macroTheme is challenging requiring some sort of reference to and elaboration about the school ban rather than the listing of reasons for or against it. All three children 're-voice' the modelled passive structure at one point in their argument to theorize about the ban and its consequences. Further, and uniquely in this dataset, all three use the anaphoric demonstrative 'This' to refer to 'the ban' evidencing tacit awareness that a process can be encapsulated as a single entity and then 'picked up' as such in a subsequent sentence. Osman and Millie's are provided below to facilitate reference.

Osman	Millie
Recently pokemon cards have been banned in our school and we don't think they should. We should learn to play with eachother here are some reason's why we should. *1.Pokemon cards have a special theme to them.* *2.you can show off your cards* *3.people swap cards and learn to be copritive* *4.It involves a lot of mentel skill example subtract* *5.it can stop fights about sport.* *Pokemon cards have been banned in our school because of bying card's for £20 pounds! This can be stopped by having a set day saying every two weeks on a Monday or Friday.*	*In our school pokemon cards have been banned. I think this is a very good thing as cards are very expensive and 30% of our school come in and sell them for £10 and over which wastes learning time and a lot of money. In our school before they were banned there was an incident where someone took someones pokemon cards and sold them which led to a fight and that has happened several times and wastes other people's learning time so infact Pokmon are sort of fading down so I think they should be banned altogether. With this there has been no arguments at all and we all have more learning time.*

Osman adds the assertion '*and we don't think that they should*' to the initial macroTheme alluding to the passive structure through ellipsis. The following sentence, '*we should learn to play with eachother*'

seems to offer an alternative to the ban. At this point, a variation of the generic macroTheme modelled in school A is introduced – '*Here are some reasons*'. Although the listing that follows is linguistically and cognitively less challenging to produce than the initial sentences, interestingly, Osman chooses to repeat the initial macroTheme in a concluding statement which considers the cause of the ban. In his final sentence, Osman 'picks up' on previous information using the anaphoric demonstrative '*This*' within his own agentless passive abstract sentence to reference the challenging behaviour alluded to in the previous sentence.

Millie also uses the anaphoric demonstrative '*this*' from the outset of her sentence 2 to reference the ban. By including the interpersonal thematic element '*I think*' she indicates that, in her opinion, '*This is a very good thing*'. This move turns her argument into something of an opinion essay in which the causes and consequences of the ban are explored. Her third sentence functions as a hyperTheme, the marked Theme ('*in our school before they were banned*') linking back to the initial macroTheme (the verb-tense tweaked correctly for the new context) before introducing an exemplifying incident. Finally, she re-introduces her own opinion, ending with a final coda statement using '*with*' as a preface to the anaphoric demonstrative '*this*' to provide an update on the impact of the ban.

Like Osman, **Shanti** follows up on the modelled macroTheme with the additional clause '*Now this has happened nobody has nothing to do*', the anaphoric demonstrative used to reference and expand on the ban. Moving on, a marked theme of concession, '*Although they are banned*,' revoices the modelled passive structure to further explore some consequences of the ban.

This '*naming*' or '*technicalising*' (Ravelli, 2011) of elements of experience in order to expand and theorise about it clearly remains cognitively and linguistically challenging and for sentences 3 and 4 Shanti raises points of argument in a more familiar way.

However, like Osman and Millie (but unusually for school A children) she too concludes her argument with a definite coda statement which succinctly integrates points raised in the first and second sections.

Discussion (currently in draft form – incomplete – further work required)

Research question 1: -What do differences between argument 1 and argument 2 reveal about the expansion of children's thematic repertoire in the argument genre?

This small-scale research provides fresh insights into the ways in which thematic resources may expand at this age. As anticipated from previous research, the data illuminates a transition from speech-like language forms towards more information-packed clauses characteristic of written language. More specifically, it illuminates the cohort's growing interest in linguistic mechanisms for managing the flow of information across longer texts. Particularly salient in this respect was the impact of the appropriation of macroThemes on the expansion of all other thematic elements: textual Themes emerged to reference the initial thesis statement in subsequent points; as a result of the over-arching thesis statement presented in the macroTheme, interpersonal Themes were used less ubiquitously and more judiciously; marked ideational Themes emerged at nexus points in the text to introduce alternative perspectives; topical Themes became fore-grounded as a result of less repetition of optional thematic elements. Therefore children showed increased interest in adopting responsibility for explicitly signposting connections between successive Themes (derived mode of thematic progression) or establishing connections between rheme and subsequent Theme (simple Linear progression mode of thematic progression).

The findings illuminate the interdependency between thematic elements but also those which are relatively easily appropriated (macroThemes) and those which seem more challenging to primary

children (abstract nominal structures and/or anaphoric demonstratives in topical Theme position; simple linear progression modes of thematic progression). Further, the findings illuminate the context-dependent nature of the expansion of thematic resources and suggest that children in this age-range have tacit knowledge of a wide-range of thematic resources which is only elicited in particular contexts.

Research question 2: A gateway to the appropriation of new modes of thematic progression

The focus on the dialectic between form and meaning which informed the data analysis illuminated that and how different modelled macroThemes elicited different thinking processes and, therefore, different modes of deploying other thematic resources to add, qualify or substantiate an argument. The highly significant impact on the initial macroTheme corroborates the cognitive psychological argument regarding **the centrality of goal-directed, self-regulated problem-solving** to generalized writing progression. The macroTheme incorporating a superordinate thesis statement for the argument to follow was seen to be pivotal to other thematic changes prompting the writer to identify a position in relation to the issue and then substantiate it through linked points to follow. Consistent with other research (example Ferretti, 2000) the findings evidenced that the Y5 (but not Y4) children had internalized this over-arching discourse goal and that awareness of this goal during the writing process impacted on the overall coherence of the Y5 texts. Further, the findings indicate that a broader range of thematic conventions (e.g. marked ideational Themes as adverbials of concession) were evidenced in the texts of children who had identified a counter argument in addition to the overall thesis statement.

However, it is also clear from the findings that cognitive strategy awareness alone cannot provide a fully comprehensive picture with regard to the multifaceted construct of writing development. The findings also corroborate Myhill's (2009b: 411) assertion that the ability to produce '*knowledge transforming*' writing is '*in part at least, about linguistic development specially in terms of how sentences are shaped and patterned.*' Forging logical-semantic links between topical Themes, and particularly those in macroTheme or hyperTheme position requires some sort of semiotic abstraction which is not as yet a readily accessible form in the children's linguistic repertoires. Findings illuminated how **contextualized linguistic models** can facilitate new modes of meaning-making. The abstract construal of events represented by the macroTheme '*Pokemon cards have recently been banned in our school*' provided a means to focus on and then reference and reflect on the ban itself rather than listing the reasons why/why not it should have been imposed. Just as this model was provided inadvertently, it can be surmised that similar spoken or written micro-models are a ubiquitous part of language learning in homes and classrooms across the globe. The clear impact of this example on three children's in-the-moment meaning-making highlights the importance of instructional approaches advocated by SFL research to systematically induct children of all ages into the powerful terms and inter-related conceptual frameworks as a central component of knowledge constitution across the curriculum.

Finally however, as discussed in the literature review, the findings suggest that while many children in this age-phase are clearly responsive to the new perspectives that semiotic abstractions provide into lived experience, these abstract language forms are not yet fully 'theirs' for the 're-making'.

A social practices, participatory perspective on writer development suggests that '*rather than "mastering"a certain practice, students use of that practice is continually evolving <u>through</u> activity as they learn to negotiate and use the resources available within and across different communities and ecological systems*' (Beach et al, 2016: 91) . Hybrid sections of the Y5 arguments illuminate the negotiations and the challenges posed, in particular, by the construction of abstract nominal structures in topical Theme position. As discussed in the literature review, it may be wishful to suppose that children can genuinely 'theorise' in academic subjects until later in their secondary and tertiary education. Encouragingly however, hybrid sections all show that the children are willing and able to

theorize and to build logical-semantic links between clauses in their own writer voice when doing so involved **the analysis of something personally meaningful**. Writing about the personally meaningful per se did not in itself give rise to theorising; after all, it was clear Pokémon card trading was a personally meaningful issue to most of the cohort. Rather, **each hybrid section illuminates the moment where the child recognizes the potential affordance a new form to re-interpret lived experience**. For Sirdar and Andrew, this comes as new uses of the sentence (Sirdar) and paragraph (Andrew) facilitate colourful exemplifications of trading issues. For Shanti, the moment comes when the thematic focus on '*the ban'* itself enables her to voice her own reflections on its consequences. Each remaking represents a momentary transformation of the child's linguistic resources, their understanding of content and their ability to manipulate both. In these moments a unique writer voice emerges.

Feature 12 of Halliday's 'Language based theory of development' is '*a generalized interpersonal gateway, whereby new meanings are first construed in interpersonal contexts and only later transferred to ideational ones, experiential and/or logical'*(1993: 104)*.* It makes sense therefore that children's initial explorations into theorizing will emerge when reflecting about their own lived experience.

Conclusions (currently in draft form – incomplete – further work required)

This detailed dataset with a focus on all thematic elements constitutes, in itself, a useful contribution to the currently under-researched area of linguistic development between late childhood and early adolescence complementing other research findings about concomitant linguistic development at this age. Further, it adds to a small but growing existing data set of research findings in relating to the development in Theme use across the lifespan. Analysis of Theme position as a particularly useful diagnostic analysis tool for writer development.

Moreover, the research can be usefully drawn on to inform existing literacy policy and practice with this age range. Findings stress the importance of providing systematic and guided opportunities for expressive writing and writing about the personally important in the primary curriculum and the care required when modelling macroThemes/hyperThemes in recognition of their likely impact on subsequent linguistic choices and therefore scope for the writer to gain new perspectives on subject-matter.

Finally, the research has methodological implications as well as scope to inform future writing research.

More research which adopts a social-semiotic approach to writing of children within this critical age-phase is required to complement findings derived from large scale qualitative RCTs. Social-semiotic research (particularly that which focuses on commonalities in relation to hybrid elements in individuals) within provides unique insights into linguistic conventions which are more and less easily appropriated as well as contexts in which children appear to tune into their communicative affordances.

Limitations

Research was very small in scale and just related to one genre; discrepancy between children's engagement in Y4 and Y5 writing task could have skewed findings
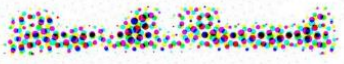
Appendices

I'm sending a letter to you about Football, the arguments For playing Football and Not playing Football.

Football.

There are many reason's for playing Football. My First reason For Football is that it gives you a Lot FOF exersice because you have to move about a lot. My second reason For playing Football is that it gets you out of trouble. My

My First reason against is that people cheat. My second reason is that after people start Fights.

Dear sir/madam

I am complaing about the state of lordship recriation ground. The bmx track is very dangrous my sreind broke his arm on the big bit of concreat sticking out of the bump, the trees are nice. If we stop littering and you help # will get much better.

Yours sincerly

Ideas to make park better
ps. • flower beds
    • better bmx track
    • better fenceing
    • floor games hopscoch extra.

pps. I could have kille myself

Title

I would like to persuade you that

Bruce castle should be developed.

There are several points I want to make to support my point of view.

Firstly/To begin with

1. Firstly I think that bruce is one of the oldest parks in the area we need to develop it for new history!

2.) It will be ~~more~~ environmently friendly.

3.) It very useful and will be very good for the residents.

L.I. To be able to write out convincing arguments on a given topic.

Should ball games be allowed in the playground.

Arguments for	Arguments against
• Ball games are fun and energetic.	• If you have a ball in the playground and you play football and if you tackle them and fall over they can have serious injuries.
• Football or any other games should be allowed on a grassy area to prevent injuries.	• If the ball gets kick over by someone else who is not playing with it they get into a fight.
• You can practise your catching skills.	• When teachers are correcting in their classroom it is annoying if the ball hit the window.
	• If the the balls go over we wouldn't be able to get it and it ruins peoples plants.

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